

**COUNTER ELECTROSEPARATION DEVICE WITH INTEGRAL PUMP  
AND SIDE-ARMS FOR IMPROVED CONTROL AND SEPARATION**

**ABSTRACT OF THE DISCLOSURE**

A device is disclosed having an electroosmotic pump in communication with a particle separating channel and a first electrode disposed proximate the one end the particle separating channel and at least one second electrode spaced apart the first electrode to maintain a first voltage. The device may also include at least one sidearm channel in communication with the particle separating channel and a third electrode disposed in the sidearm channel spaced apart from the at least one second electrode to maintain a second voltage.